

CLAIM PENDING IN INSTANT APPLICATION

1. (Twice Amended) A diagnostic kit for the diagnosis of tuberculosis and other mycobacterial infections in humans and animals comprising:

(i) an enzymatic test kit for the determination of the activity of alanine dehydrogenase (E.C. 1.4.1.1), comprising L-alanine, nicotinamide adenine dinucleotide (oxidized form; NAD⁺), phenazine methosulphate (PMS) and nitroblue tetrazolium chloride (NBT); and

(ii) a nucleic acid consisting of a DNA sequence selected from the group consisting of the following partial sequences of the alanine dehydrogenase gene of *M. tuberculosis*:

Name	Sequence	SEQ ID NO:	Orientation
AlaDH-F1	5'-ATGCGCGTCGGTATTCCG-3'	11	forward
AlaDH-F1+	5'-GCGCGTCGGTATTCCGACCG-3'	12	forward
AlaDH-F2	5'-GAGACCAAAAACAACGAA-3'	13	forward
AlaDH-F4	5'-GAATTCCCATCAGCAATCTTGCAGA-3'	14	forward
AlaDH-F5	5'-GCCCCGATGAGCGAAGTC-3'	15	forward
AlaDH-F6	5'-GGGGCCGTCTGGTGCC-3'	16	forward
AlaDH-F7	5'-GACGTCGACCTACGCGCTGAC-3'	17	forward
AlaDH-R1	5'-CTCGGTGAACGGCACCCC-3'	18	reverse
AlaDH-R2	5'-GGCCAGCACGCTGGCGGG-3'	19	reverse
AlaDH-R3	5'-CACCCGTTCGGACAGTAA-3'	20	reverse
AlaDH-R4	5'-CGCGGCCGACATCATCGC-3'	21	reverse
AlaDH-R5	5'-GGCCGACATCATCGCTTCCC-3'	22	reverse
AlaDH-R6	5'-CGAGACTAATTGGGTGCCTTGGC-3'	23	reverse
AlaDH-R7	5'-ATTGGGTGCCTTGGC-3'	24	reverse
AlaDH-RM	5'-GGCGGCGAGTCGACCGGC-3'	25	reverse

and sequences that are hybridizable therewith under the following conditions: annealing 2 minutes at 69°C and extension 3 minutes at 72°C at a 1.5mM concentration of MgCl₂, for the diagnosis of tuberculosis and other mycobacterial infections in humans or animals.